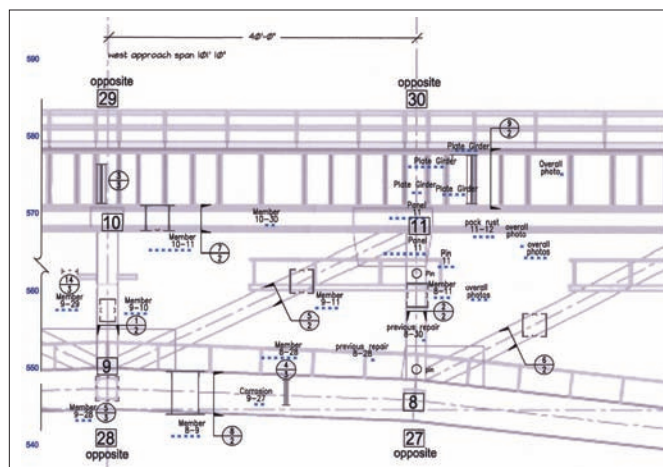


Canadian Pacific Railway Bridge Niagara River Gorge, Niagara Falls, NY



Original engineer:

William Perry Taylor, J. L. Delming, Olaf Hoff
(completed 1925)

Owner:

Canadian Pacific Railway

In collaboration with:

FTL Design Engineering Studio

Structure description:

The Canadian Pacific Railway (CPR) Bridge was built between 1924 and 1925 by the Michigan Central Railway, and is also known as the Michigan Central Railway Bridge. The current bridge replaced an earlier bridge known as the Michigan Central Railway Cantilever Bridge, which stood at roughly the same location of the Niagara River Gorge between 1883 and 1925. Railroad service ceased shortly after the bridge was acquired by CPR in 1990, and the single set of tracks on the bridge was removed.

The CPR Bridge is a steel truss arch bridge supporting a steel plate deck. It is composed of a series of vertical, diagonal and horizontal members connected together at riveted panel points. Several types of cast elements are used in the construction of the bridge, including bearing shoes between the top chord and the plate girder at the main span and the anchorage connections at the four anchor points. The connections at the cast elements are bolted.

Scope of work:

- Characterization of primary and secondary structural members.
- Direct measurement of bridge components.
- Drafting of scaled sections at each type of structural member.
- Investigation and documentation of conditions at each of the four points where the arched trusses are anchored to the ground.